Snohomish County Medical Examiner

Safety

Policies and Procedures

This manual contains Safety policies and procedures of the Medical Examiner's Office and supersedes all previous information relating to: Safety Policies and Procedure

This Manual shall be effective on April 13, 2011 and will remain in effect until suspended by written directive.

Norman Thiersch, M.D., Chief Medical Examiner

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SECTION 1.0
Accident Prevention Program

1.1 Policy
It is the policy of The Medical Examiner's Office to maintain a high standard of safety throughout all operations of the Medical Examiner's Office and to provide a workplace that is free from recognized hazards.

1.2 Purpose
The purpose of this Accident Prevention Program is to ensure employee safety and protection by providing information and training in the use of safety devices, safeguards and work practices that are reasonably adequate to make the workplace safe.

1.3 Safety policy and Procedures
Each employee is provided and shall strictly adhere to the SCMEO Safety Policy and Procedures. This written accident prevention program is designed to be in compliance with federal, state and local safety and health regulation and that implements accepted occupational safety and health and loss control practices.

1.4 Safety Office
The Snohomish County Safety Office is located in the Department of Finance and is directed by the County Executive to develop, maintain, promote and monitor the Safety Program.

1.5 Safety Committee
A SCMEO Safety and Health Committee shall meet quarterly. The safety committee does a "walk-through" inspection and ensures corrective action is taken if needed. The Safety Committee meeting minutes shall be sent to the County Safety Office and posted on the safety board in the entry area from the garage to the office areas.

1.6 Location of Safety Supplies and Equipment
1. The SCMEO Safety Policies and Procedures shall be maintained and readily available on the bottom bookshelf in the SCMEO library and on the SCMEO employee Sharepoint.
2. First Aid kits are located in the front office in the front right counter door, on the book shelf in Investigations, in each vehicle, in the cabinet in the garage above the digital fingerprint station, and above the scrub sink in the hallway to the examination room.
3. The eye wash station is located across from the scrub sink in the hallway to the examination room.
4. The safety shower is overhead between the scrub sink and the eye wash.

5. Specialized safety containers dedicated for the disposal of biological waste are located in the examination room and the body intake/release area. These containers are marked with the warning “Biohazard” and with the OSHA (and WISHA) approved hazardous waste symbol.
6. The safety cabinet used for the storage of limited volumes of flammable agents is located in the histology room. It is bright yellow and labeled “Flammable. Keep Fire Away.”
7. Personal protective Equipment (PPE) supplies, including equipment for eyes, face, head, extremities, protective clothing, and N95 respirator masks, are maintained in the launder room.
8. The Material Safety Data Sheets (MSDS) book is in the bottom bookshelf in the library.
9. Accident and injury forms are located in the wall bins in the hallway entrance from the garage.
10. The closest US HealthWorks (for industrial injuries) is located at 11 1 31st Place West, Everett (Paine Field). Call 425-267-0299.
11. The County Safety Office is on the fourth floor on the Administration West Building on main campus. The County safety officer, John Navroth, can be reached at 425-388-3549 during office hours or at 425-754-6712 (cellular) in an emergency outside of office hours.

1.7 Employee Responsibilities

Individual employee responsibilities are as follows:

1. Offer suggestions, coordinate and cooperate with others to identify hazards, eliminate accidents and maintain a safer work environment.
2. Comply with safety policies, procedures and practices.
3. Promptly report to their supervisor any occupational injuries or illnesses using the accident/incident reporting forms provided in the garage hallway display.
4. Promptly report to their supervisor any unsafe conditions or hazards, or defective or damaged tools or equipment using the Safety Hazard Report, attached at the end of Section 1.0 of the Safety Policy and Procedures.
5. Properly use and care for safety devices and personal protective equipment.

1.8 Workplace Prohibitions

1. MEO employees are prohibited from entering into or remaining in any environment in the course of their work that is unsafe or becomes unsafe. Examples of such hazardous environments may be chemical spills, confined spaces, and the unexpected hazardous energization of equipment. Training for recognition of these hazards is addressed below.
2. Employees are prohibited from using tools and equipment that are not safe.
3. Alcohol and narcotics are prohibited from the workplace.
4. Employees are prohibited from being under the influence of alcohol or narcotics while on duty. Employees who are taking prescription drugs, as directed by a

physician or dentist are exempt from this section, if the employees are not a danger to themselves or other employees.

1.9 Training

It is the intention of this office to provide appropriate employee accident prevention and safety training. Each employee is responsible for their own safety and health for the safety of the co-workers around them. By accepting mutual responsibility to operate safely, each employee contributes to the well being of all employees. Each employee shall be provided training on and shall strictly adhere to the following referenced policies and procedures:

1) Familiarity with the SCMEO Safety Policy and Procedures.
2) Reporting injuries, including how and when to report, location of first-aid kits and directions for occupational medical treatment (US HealthWorks during weekdays, Emergency room after hours). Reporting unsafe conditions and practices. Requirements of the Hazard Communication Program (Safety Policy and Procedures, Section 5.0, Hazardous Communication Program) and the location (of the department Material Data Safety Sheets (MSDS). This training is provided to ensure that employees know about chemical products used in the work place and how to protect themselves. The use, care, selection and maintenance of required personal protective equipment.
3) Annual training on occupational exposure to blood borne pathogens and exposure controls. (Safety Policy and Procedures, Section 3.0, Exposure Control Plan, and Section 3A.0, procedures implementing the Methods of Compliande of the Exposure Control Plan.)
4) Annual training on emergency preparedness and response, including the exit routes from work areas during emergencies. (Emergency / Disaster Policy and Procedures, Section 1.0 Facility Emergency Preparedness Plan)
5) Annual testing and training in use of respiratory equipment and the type of systems used. (Safety Policy and Procedures, Section 4, Respiratory Protection)
6) Recognition and avoidance of the hazards of confined spaces and the unexpected hazardous energization of equipment. This training shall be provided annually. Employees are prohibited from enter into dangerous situations or environments.
7) Annual training in the use of formaldehyde and radiologic equipment for Pathology Assistants. (Safety Policy and Procedures, Section 6.0 Radiation Protection and Section 3.0 Exposure Control Plan)
8) Training on repetitive motion injuries, lifting and back care.

1.10 Immunizations and TB testing

TB testing shall be provided annually at employer expense. Employee testing and refusals to be tested shall be documented and maintained in a confidential file. Staff with a history of positive skin tests shall be offered a yearly follow-up evaluation.

Hepatitis B Immunizations shall be provided at the employer's expense. Documentation of employee vaccination or refusal to be vaccinated shall be retained in a confidential file.

Snohomish County

SAFETY HAZARD REPORT

Date of Report_____

To (supervisor) _____

Department_____ **Division**_____

Reported by_____

Location_____

1. HAZARD:

_____

_____

_____

_____

_____

2. CORRECTIVE ACTION:

_____

_____

_____

_____

_____

3. DATE CORRECTIVE ACTION COMPLETED: _____

_____ _____

Employee Signature **Supervisor Signature**

CC: Safety Office

SECTION 2.0
Uniforms, Protective Clothing and Office Attire

2.1 Policy

It is the policy of the Medical Examiner's Office to issue clothing to employees as necessary to provide identification and safety in the performance of their work. Additionally, every employee of the SCMEO interfaces with the public and with families of the deceased who are grieving and somber. Out of respect for the deceased and the families that we serve, it is the policy of the SCMEO that every employee wear the employer issued uniform or professional office attire (when no uniform is issued) while in the performance of their work.

2.2 Uniforms and Personal Protective Clothing

Employees who are required to wear items of clothing for identification, hygiene, or safety shall be provided with the required items according to the Medical Examiner's Addendum to the Master Agreement between Snohomish County and Washington State Council of County and City Employees AFSCME/AFL-CIO and the Exposure Control Plan and Procedures.

At all times when assigned to investigation duties, employees shall wear the Investigator uniform or jumpsuit that is provided by the employer. When assigned to pathology assistance the employee shall wear employer issues shoes, scrubs and personal protective clothing as required in the Exposure Control Policy and Procedures.

2.3 Uniform Maintenance and Replacement

Employer issued clothing and equipment shall not be used for personal or recreational use by the employee.

Requests for replacement of clothing issued by the employer must be approved by the supervisor in advance of purchase.

Repair and replacement of employer issued uniform items shall be approved on the basis of reasonable wear and tear.

1. Employer provided items that wear out due to work use shall be returned for Supervisor review and approval for repair or replacement.
2. The employee shall complete a purchase request form and submit to supervisor for review and approval.
3. The supervisor's approval of the purchase request shall be routed to the administration section for financial review for consistency with this policy and budgeted appropriations.

2.4 Non-uniformed Personnel

Professional business dress is required for non-uniformed personnel. Jeans, overalls, or other casual denim clothing is not acceptable attire for any employee while in the performance of their work.

SECTION 3.0
Exposure Control Plan

3.1 Purpose

The purpose of this addendum is to:

1. Minimize employee exposure to blood or other potentially infectious materials that may result from the performance of an employee's duties,
2. Supplement Snohomish County Safety and Health Handbook, Exposure Control Plan, Procedure # 15, to identify specific requirements for exposure control within the Medical Examiner Office, and
3. Supplement Snohomish County Safety and Health Handbook, Exposure Control Plan, Procedure # 15, to implement changes relating annual employee input on engineering and work practice controls.

3.2 Implementation and Maintenance of this Plan

1. Each employee shall receive, review and maintain a copy of the exposure control plan in a place where it is accessible to the employee.
2. All provisions for the exposure control plan methods of compliance are in place and in compliance with the requirements of Chapter 296-62 WAC, General Occupational Health Standards, part J Biological Agents (Bloodborne Pathogens) and shall be implemented immediately.
3. The exposure control plan shall be reviewed and updated at least annually, and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:
   a. Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
   b. Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
   c. Each non-managerial employee who is potentially exposed to injuries from contaminated sharps in the performance of their duties is solicited to provide input in the identification, evaluation, and selection of effective engineering and work practice controls. Said input may be provided to the Medical Examiner at any time and will be solicited annually. An annual solicitation of employee input shall be documented in the exposure control plan.

3.3 Definitions

The definitions section shall be amended to add the following new definitions:

- "Engineering controls," means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

- "Needleless systems" means a device that does not use needles for:
    i. The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;
    ii. The administration of medication or fluids; or
    iii. Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.
- "Sharps with engineered sharps injury protections," means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

3.4 Exposure Determination

1. The following job classifications are determined to have occupational exposure for all employees working in these job classifications.
    a. Chief Medical Examiner
    b. Associate Medical Examiner
    c. Pathology Assistant
    d. Chief Medical Investigator
    e. Master Medical Investigator
    f. Medical Investigator

2. The following job classifications are determined to have occupational exposure for some employees working in these job classifications.
    a. Medical Examiner Deputy Director
    b. Accounting Technician II

3. The following is a list of all tasks and procedures or groups of closely related tasks and procedures in which occupational exposure occurs:
    - Autopsy (including preparation and clean up)
    - Body removal from scene
    - Dental charting
    - Fingerprinting
    - Inventory and release of personal property
    - Packaging and transport of evidence
    - Packaging and transport of specimens to laboratory
    - Photography of evidence or specimens
    - Processing body in morgue
    - Radiology (body and dental x-rays)
    - Release of remains to funeral home
    - Scheduled cleaning procedures
    - Scene investigation
    - Scene view examination

4. Job classification exposure determinations are made without regard to the use of personal protective equipment.

3.5 Methods of compliance

3.5.1 Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

3.5.2 Engineering and work practice controls: Housekeeping.

1. Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:
    a. Closable;
    b. Puncture resistant;
    c. Leak proof on sides and bottom; and
    d. Color-coded in accordance with subsection 20.20.070.A. of this policy.

2. During use, containers for contaminated sharps shall be:
    a. Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);
    b. Maintained upright throughout use; and
    c. Replaced routinely and not be allowed to overfill.

3. When moving containers of contaminated sharps from the area of use, the containers shall be:
    a. Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;
    b. Placed in a secondary container if leakage is possible. The second container shall be:
    c. Closable;
    d. Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and
    e. Labeled with the symbol shown in Appendix A or color-coded fluorescent orange or orange –red.

4. Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of percutaneous injury.

5. Other regulated waste containment.
    d. Bio-hazard waste shall be placed in a bio-medical waste burn box that is lined with a red plastic bag and labeled “Biohazard”. These containers are:
        i. Closable;

ii. Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping;
iii. Labeled with the hazard symbol identifier and/or clear and bold indicator of “Bio-hazard” or color-coded fluorescent orange or orange - red; and
iv. Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

e. If outside contamination of the biohazard waste container occurs, it shall be placed in a second container. The second container shall be:
i. Closable;
ii. Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping;
iii. Labeled with the symbol shown in Appendix A or color-coded fluorescent orange or orange -red; and
iv. Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

f. Formalin is disposed of by neutralizing and solidifying it in ALDEX and disposed of in the regular trash.

3.6 Morgue Facilities

3.6.1 Morgue doors shall be kept closed when work is in progress.

1. Access to the morgue shall be limited to authorized persons. Only persons who have been advised of the potential biohazard, who meet specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas.
2. A hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors to the morgue. The hazard warning sign shall comply with Snohomish County Safety and Health Handbook, Exposure Control Plan, Procedure # 15, Appendix A.
3. Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the morgue. Contaminated clothing shall not be worn outside of the work area.
4. The morgue is separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the morgue from access corridors or other contiguous areas. Physical separation of the morgue from access corridors or other areas or activities is also provided by a double-doored clothes-change room with showers.
5. Access doors to the morgue are self-closing.
6. A ducted exhaust-air ventilation system is provided. This system creates directional airflow that draws air into the work area through the entry area. The exhaust air is not re-circulated to any other area of the building, is discharged to the outside, and is dispersed away from occupied areas and air

intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

3.6.2 The surfaces of doors, walls, floors, and ceilings in the morgue are water resistant so that they can be easily cleaned.

3.6.3 The morgue is equipped with sink for washing hands and a readily available eye wash facility. The sink is knee operated and is located near the exit door of the work area.

3.7 **Record Keeping**: Sharps injury log

The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

1. The type and brand of device involved in the incident;
2. The department or work area where the exposure incident occurred; and
3. An explanation of how the incident occurred.

SECTION 3A.0
Procedures Implementing the Methods of Compliance of the Exposure Control Plan

3A.1 General Procedures for Methods of Compliance

The purpose of this procedure is to provide uniform and specific procedures for the implementation of the Methods of Compliance, section of the Snohomish County Safety and Health Handbook, Exposure Control Plan, Procedure # 15, Revision Date June 2000, and the Medical Examiner Policy number PRO 20.20, Addendum to Exposure Control Plan.

3A.1.1 Engineering and work practice controls

1. Whenever feasible, engineering and work practice controls shall be used in preference to personal protective equipment in order to minimize or eliminate employee exposure.
2. Hands must always be washed immediately after each contact with blood, body fluids, or contaminated materials.
    a. Wash hands by scrubbing vigorously with soap and water paying attention to fingers and under fingernails. Use paper towels to dry hands; turn off faucet with paper towel to avoid recontamination.
    b. If hand-washing facilities are not available antibacterial towelettes or waterless antibacterial hand cleaner should be used. Pre-moistened antibacterial towelettes or waterless antibacterial hand cleaner are available in the SCME vehicles for use in the field.
    c. When antibacterial towelettes are used hands should be washed with soap and running water as soon as feasible.
3. Any item to be disposed of that has been contaminated with blood or other body fluids should be placed in the BIO-MEDICAL WASTE bag in the BIO-MEDICAL WASTE container and not in the regular trash receptacle.
4. Keep all equipment clean and maintain a stock of protective equipment in your work area.
5. Avoid touching equipment (flashlight, pens, first aid kit, etc.) while wearing contaminated gloves to maintain a clean work environment.
6. Eating, drinking, and smoking are prohibited in the morgue, vans, and work areas where there is a reasonable likelihood of occupational exposure. Food and drink shall not be kept in refrigerators, freezers, shelves, and cabinets or on countertops or bench tops where contaminated materials are or have been present.

3A.1.2 Personal protective equipment (PPE)

1. All employees shall use barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids is anticipated.
2. PPE includes, but is not limited to, gloves, masks, protective eyewear, gowns, aprons, and disposable jumpsuits.

3. Keep all wounds covered with a bandage or dressing to avoid exposure to infectious materials.
4. If blood or body fluids penetrate a garment the garments shall be removed immediately.
5. Gloves shall be worn when it can be reasonably anticipated that you will be touching blood and body fluids or non-intact skin.
    a. Disposable gloves are to be removed by pinching the palm of the left glove and pulling the glove down and off your fingers. Form the glove into a ball and hold it in the palm of your right hand. Insert two fingers of your left (ungloved) hand under the inside rim of your right glove on the palm side. Push the glove inside out and down onto your fingers and over the balled left glove. Grasp gloves, which are now together and inside out with your left hand and remove them from your right. Dispose of glove into a biohazard bag and wash hands.
    b. If a glove is torn or damaged, the glove should be removed and replaced immediately.
    c. Employees are to wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.
6. All personal protective equipment is to be removed before leaving the work area. Personal protective apparel should be turned inside out as you remove it to prevent contamination from the item after it has been removed.
7. Clothing that has become contaminated shall be removed and placed into a biohazard bag for transport and cleaning.
8. Spare footwear, e.g. fire boots, should be carried in the SCME vehicles for each person who does scene investigation / body removal. Jump suits are provided for use if other clothing needs to be removed.
9. Housekeeping. Keep all equipment clean and maintain a stock of protective equipment in your work area.

3A.2 Investigation Procedures

3A.2.1 Engineering and work practice controls

1. Sharps
    a. Reusable sharps are not to be used in the field and needles are not to be recapped.
    b. When removing a sharp from the scene, the sharps container is brought to the location of the sharp as opposed to transporting the sharp to the van. A long forceps or tongs is provided for use in collecting the sharp and placing it into the container.
    c. Sharps containers are to remain upright at all times and must not be overfilled. Clear hard plastic containers labeled with the biohazard symbol will be provided for sharps that are taken into evidence. Seal the container with tape before transport.
2. Personal property that has been contaminated by blood or body fluids should be sealed in leak proof bags after it has been inventoried and witnessed. This property should be laid out on butcher paper to dry immediately upon returning to the morgue. Fans are not to be used to speed the drying process. After the

property has been dried it should be inventoried, bagged and sealed for release to the next of kin without direct handling of the material. These bags are not to be opened in any of the office work areas.

3. All Property leaving the morgue shall be dry and packaged in see through plastic bags.
4. Items of evidentiary value such as clothing and property that have been soiled by blood and body fluids must be transported in leak proof red biohazard bags; however, this packaging is detrimental to the preservation of trace evidence and the crime lab suggests a minimum of two hours prior to packaging, that the material needs to be laid out to dry. Items to be dried should be placed on butcher paper in the evidence cage in the drying room. This paper should then be transferred with the clothing as it may now contain trace evidence.
5. Weapons are to be made safe at the scene by law enforcement, made inoperable with cable ties by the investigator and packaged for transport to the medical examiners facility.
    a. A weapon contaminated by body fluids that is sufficiently dry may be wrapped in butcher paper, sealed and labeled with a biohazard sticker.
    b. Weapons are to be made safe, inoperable and must be completely contained before they are removed from the morgue to the evidence locker.
    c. Name, date, time, description, action and location must be entered in the weapons log when a weapon is brought to the morgue, placed in the evidence locker or released.
6. Anytime the evidentiary items are placed in a plastic biohazard bag for transport, they should also be placed in a heavy plastic container as shifting of heavier items during transport can compromise the integrity of the plastic bag.

3A.2.2 Personal protective equipment (PPE)

1. Investigators are to change into their uniforms in the changing area before each shift.
2. Lockers are provided for street clothes.
3. Uniforms are to be changed anytime during a shift when they become contaminated.
4. The contaminated clothing is to be placed into a bag and laundered in the office laundry or transported to another authorized laundry facility. .
5. Gloves should routinely be worn when making a body removal or touching property or evidence that is soiled with blood or body fluids.
6. Cut resistant gloves worn under heavier protective outer gloves should be utilized for making removals when sharp objects may pose a hazard such as traffic scenes where glass and sharp metal may pose a hazard.
7. If the gloves become contaminated the outer gloves may be placed in the biohazard waste for disposal and the liner transported back to the laundry in a biohazard bag. Always check the integrity of the cut resistant liners before putting them on by looking for loose threads or cuts.
8. Masks and protective eyewear should be worn at a scene when blood or potentially infectious materials maybe splashed or sprayed, or has been aerosolized by high velocity blood spatter; and when eye, nose, or mouth

contamination can be reasonably expected.

9. Gowns, aprons, and disposable jumpsuits are provided in the vehicles and are to be worn during body moving or removal when gross contamination can be expected.
10. Respirators and protective clothing are to be worn whenever airborne biological hazards are anticipated. A HEPA respirator or an N95 mask must be worn whenever there is potential for a TB exposure. High hazard procedures performed on an individual with suspected or confirmed TB disease can generate potentially infectious airborne aerosols. (Please see the respirator program for operating procedures.)
11. Prior to leaving a scene all contaminated material and protective clothing is to be placed into red bags or containers labeled with the biohazard symbol and sealed for transport back to the office.

3A.2.3 Housekeeping

To ensure the safety of all employees in exposure areas the following housekeeping procedures will be followed.

1. After a body has been removed to the morgue it is to be placed on the gurney without sheets or excess clothing under the body that could trap pooling body fluids.
2. After the body has been placed into refrigeration the investigator shall clean and decontaminate the stretcher to ensure that employees are not unwittingly exposed to infectious materials remaining on surfaces from previous procedures.
3. The SCME vehicle is to be cleared of all infectious wastes. All spills and contaminated surfaces should be cleaned and disinfected upon return from transport using disinfectant soap and a brush present in the garage.
4. Biohazard waste transported from the scene shall be placed in the biohazard waste container in the morgue.
5. The following Procedures shall be followed when releasing bodies to the funeral director:
    a. Personal protective equipment including gloves, aprons, and eye protection should be worn.
    b. Contaminated linen is to be placed in the laundry hamper. Any other contaminated PPE or disposable items will be placed in the biohazard waste container.
    c. The table will be washed down into the autopsy table sink with disinfectant soap and a long handle brush present in the garage and dried with a towel. Make certain to clean the lip under the top tray as well as the bottom tray and wheels. Do not plug the drain hole in the bottom tray until the table is needed for a body.
6. Decontamination is required only after procedures resulting in surface contamination.
7. Cleaning and disinfecting solutions are kept on the shelves next to the sink in the garage and in the morgue.
8. All affected areas, including the autopsy table, the garage floor, the refrigerated area (cooler) floor and any other surface that might have been contaminated with

blood or body fluids are to be cleaned and decontaminated with an appropriate cleaner.

9. Towels used in the cleaning procedure are to be placed in the biohazard laundry hamper, or if disposable towels are used, in the biohazard waste container.
10. Large spills will require mopping with an appropriate disinfectant found in the morgue storage room opposite the hand wash sink. This mop water is to be discarded immediately after the clean up procedure. Mop head must be decontaminated at completion of clean up procedure. This can be accomplished by soaking the mop head in a container of 10% bleach solution.
11. A foaming type aerosol is available for hard to clean areas such as the cots.
12. Although all work areas are to be kept in a clean and sanitary condition the contents of the SCME vehicles shall be inspected by the in-coming investigator at the beginning of each shift.
13. A daily vehicle checklist will be completed to insure that adequate personal protective equipment is present as well as other necessary equipment and that the vehicle is in working order. Each Investigator will be responsible for at least one inspection per week, as assigned.
14. The vehicles will also be inspected to make sure that they are clean.
15. It is the investigator's obligation to clean and restock the vehicle on return from a call.

3A.4 Autopsy procedures

3A.4.1 Engineering and work practice controls

1. The autopsy room and the entrances to those areas of the morgue where exposure to biological hazards will occur are clearly marked with biohazard labels.
2. During the time a postmortem examination is in progress, all access to the autopsy room will be through the laundry room. Do not use the cooler doors from the garage.
3. Anytime anyone enters the morgue during an autopsy, there is the possibility for exposure to biological hazards.
   a. Access during autopsy is restricted to personnel performing the examination.
   b. If entry to the morgue is necessary during autopsy PPE including a mask, eye protection, a disposable coverall and foot coverings shall be worn.
   c. Before entering the morgue visually check to ensure that no autopsy is being conducted. This can be done by looking through the window in the observation room or by entering the morgue access hallway from the laundry room to verbally determine whether or not an autopsy is being conducted or bodies are open.
   d. If an autopsy is being conducted or bodies are open do not enter. Use the intercom in the observation room or the telephone to communicate with the occupants.
   e. Should you open the door to find an autopsy in progress or are told by anyone in the autopsy room not to come in, you will immediately close the door and leave. The autopsy room under these conditions is off limits to anyone not wearing appropriate protective equipment.

4. The SCME policy and procedure manual (PRO 70.20 Standard Procedure for Postmortem Examinations) contains an autopsy section describing the techniques used during a postmortem examination. Follow these procedures to minimize the aerosolization of infectious materials.
5. Handle and dispose of sharp instruments with extraordinary care to prevent accidental injury.
6. Use an instrument and not your hands to remove scalpel blades, and do not recap needles.
7. Any spills on the floor during this procedure should be cleaned as soon as feasible with disinfectant to minimize exposure.
8. The procedure for using the camera equipment in the morgue is to keep it clean.
    a. Do not handle the camera with contaminated gloves.
    b. After the photographs have been taken the photographic equipment is to be removed from the morgue so that it does not become contaminated during autopsy procedures.
    c. If a picture is needed during an autopsy, contaminated gloves and aprons are to be removed while using the camera.
    d. Anyone leaving the morgue during or after the autopsy is to remove the outer layer (gowns, aprons, shoe covers, etc.) before exiting. Immediately wash hands using the recommended hand washing technique posted by the sink.
9. At the conclusion of the autopsy the body will be wrapped.

3A.4.2 Personal Protective Equipment (PPE)

All employees who participate in autopsies or other invasive procedures will wear PPE to insure their safety and protect them from possible exposure.

1. PPE will include, but is not limited to gloves, masks, protective eyewear, head covers and shoe covers. Gowns and scrubs should be worn under waterproof aprons and sleeves.
2. To protect against possible respiratory hazard, HEPA respirators or N95 masks shall be worn at all times and on cases where an individual is suspected or confirmed to have TB. (See respirator program for procedure).
3. Change from street clothes to scrub suits and gown up in the changing room before entering the morgue.

3A.4.3 Housekeeping

After the bodies have been placed into refrigeration and all extra personal have left the morgue, the clean up procedure can begin.

1. All equipment and working surfaces are to be cleaned with disinfectant soap and decontaminated.
2. The floor will be mopped with a disinfectant solution.
3. No one is allowed back into the morgue after the clean up to allow the floor to dry and adequate air exchange.
4. The contaminated laundry is taken to the laundry area for cleaning.
5. Contaminated garbage is to be emptied daily into biohazard containers.

SECTION 4.0
Respiratory Protection

4.1 Purpose, scope and implementation

1. The purpose of this procedure is to protect against possible respiratory exposure to TB.
2. Methods of identification of known or suspected TB may include questions related to the person's medical history including records showing a positive TB test, chest x-ray or diagnosis of TB disease. Symptoms associated with active TB are productive cough, coughing up blood, weight loss; loss of appetite, lethargy, weakness, night sweats or fever.
3. HEPA filtration respirators or N95 masks shall be worn by all employees who have direct exposure to a person who is diagnosed or suspected to have TB. This includes exposure to a room where a high hazard procedure has been performed on the individual which has the potential to generate potentially infectious airborne respiratory secretions. Autopsies are high hazard procedures.
4. Each employee required to wear a respirator will be fit tested and trained by the safety office such that he or she is proficient and knowledgeable with respect to the HEPA respirator or N95 mask. For a more detailed description of fit testing and associated requirements please refer to Snohomish County Safety and Health Policy and Procedure Handbook # 14, Respiratory Protection Program. Facial hair may not come between the sealing periphery of the face piece and the face. To be sure it is in proper working condition, the wearer shall inspect the respirator prior to each use.
5. Initial medical surveillance of employees shall include preplacement evaluation, administration and interpretation of Mantoux skin tests, and periodic evaluations. All employees considered to be at risk shall be offered:

    a. Annual medical questionnaire and evaluation to determine the employee's ability to use a respirator,
    b. Annual respiratory protection training.
    c. Annual respirator fit testing,
    d. Annual TB testing.

4.2 Voluntary Respirator Use

1. Respirators may be used by employees on a voluntary basis when no respiratory hazard exists.
2. Respiratory use is not voluntary if a respiratory hazard exists.
3. Voluntary use of a respirator must not interfere with an employee's ability to work safely, such as restricting necessary vision or radio/telephone communication or create health hazards.

4. Each employee who chooses to voluntary use a respirator shall read and sign acknowledgement of the “Advisory Information for Employees Who Voluntarily Use Respirators” prior to such voluntary use.

Insert Voluntary Use Agreement

SECTION 5.0
Hazard Communication Program

5.1. Policy

To ensure that information about the dangers of all hazardous chemicals used by the Snohomish County Medical Examiner's Office (SCMEO) is known by all affected employees, the following Hazardous Communication Program is established. Under this program, SCMEO employees are informed of the contents of the OSHA Hazard Communications standard, the hazardous properties of chemicals with which employees work, safe handling procedures and measures to take to protect themselves from these chemicals.

This program applies to all work operations in the SCMEO where an employee may be exposed to hazardous chemicals under normal working conditions or during an emergency situation. All employees of the SCMEO will participate in the Hazard Communication Program. Copies of the Hazard Communication Program are available in the Material Safety Data Sheet (MSDS) folder in the front office for review by any interested employee.

Although the Chief Medical Examiner has overall responsibility for the safety of SCMEO staff members and visitors, the senior Pathology Assistant is the Hazardous Communication Program coordinator; his/her duties include reviewing and updating this plan as necessary.

5.2. Responsibilities

1. The Chief Medical Examiner has overall responsibility for the safety of employees of the Snohomish County Medical Examiner Office. In order to carry out this program, he/she may delegate certain duties.
2. The Associate Medical Examiner and other members of Management will assist in facilitating the management of this program as necessary. This will include ensuring that all employees receive annual training on Material Safety Data Sheets and the Hazardous Communication Program.
3. The senior Pathology Assistant has operational responsibility for this program. These duties include annual review of the Hazardous Communication Program, review of the MSDS sheets maintained by the facility and ensuring that for each chemical used by the facility, there is a matching MSDS on file.
4. All employees are responsible to only bring chemicals into this facility in a controlled fashion, where they have been approved for use, a MSDS has been obtained and employees are trained as to any hazards.
5. In order to prevent unauthorized newly introduced chemicals, the Accounting Technician II will not purchase new chemicals that have not been pre-approved by the Management Team (however, this does not preclude reordering chemicals that have been previously approved).
6. In addition, all employees are responsible for being familiar with the contents of this policy and procedure.

5.3. Container Labeling

The senior Pathology Assistant will verify that all containers received for use will be clearly labeled as to the contents, note the appropriate hazard warning and list the manufacturer's name and address.

The senior Pathology Assistant will also ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or with labels marked with the identity and the appropriate hazard warning. If help with labeling becomes necessary, the County Safety Officer, John Navroth (425-388-3549) will be contacted.

For secondary containers (such as stock jars and tissue bags) that contain formalin, SCMEO uses an in-house labeling system that relies on a formalin warning on the decedent identification label. Other secondary containers (such as spray bottles containing dilute bleach solution) should also be labeled. At an absolute minimum, the contents should be listed, but additional valuable information would be a Hazard Sticker, as well as the date and initials of the person filling the container.

The senior Pathology Assistant will review the SCMEO labeling procedures annually and will update labels as required.

5.4. Material Safety Data Sheets (MSDS sheets)

The senior Pathology Assistant is responsible for establishing and monitoring the MSDS program at the SCMEO. He/she will ensure that procedures are developed to obtain the necessary MSDS sheets and will review incoming MSDS sheets for new or significant health and safety information. He/she will see that any new information is properly communicated to employees that might be affected by the chemical or material. The procedure below will be followed when a MSDS is not received at the time of initial shipment:

> The chemical will not be used until a MSDS is either received from the company (or an equivalent MSDS is downloaded from the Internet) and has been reviewed by those who will use the chemical.

Copies of MSDS sheets for all hazardous chemicals to which employees are exposed or are potentially exposed will be kept in the MSDS notebook book in the bottom shelf of the library (a central and easily accessible location in the office). It is the law that MSDS sheets will be readily available to all employees during each work shift. If a MSDS is not available, contact the senior Pathology Assistant.

When revised MSDS sheets are received, the following procedures will be followed to replace old MSDS sheets:

> The old MSDS and the new MSDS will be compared for changes. Any substantive changes will be communicated to any affected workers (e-mail is an acceptable

medium for this type of communication). The old MSDS sheet need not be retained and can be discarded.
Examples of the chemical identification tags and the Hazardous Materials Identification System sheets that are used by the SCMEO are found in the MSDS notebook.

5.5. Employee Training and Information

The Chief Medical Examiner is responsible for the Hazard Communication Program and senior Pathology Assistant will ensure that all program elements are carried out.

Each new employee will receive initial training on the hazard communication standard and this plan before starting work. Each new employee will attend a health and safety orientation that includes the following information and training:

1. An overview of the OSHA hazard communication standard;
2. The hazardous chemicals present at his/her work area;
3. The physical and health risks of the hazardous chemicals;
4. Symptoms of overexposure;
5. How to determine the presence or release of hazardous chemicals in the work area;
6. How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices and personal protective equipment;
7. Steps the SCMEO has taken to reduce or prevent exposure to hazardous chemicals;
8. Procedures to follow if employees are overexposed to hazardous chemicals;
9. How to read labels and MSDS sheets to obtain hazard information; and
10. Location of the MSDS file and the written Hazard Communication program.

Prior to introducing a new chemical hazard into any section of the SCMEO, each employee in that section will be given information and training as outlined above for the new chemical hazard. The training format will be as follows:

The Senior Pathology Assistant will either:
1. meet in-person with the employees who may use the chemical and will review in an one-on-one fashion the MSDS with the employee; or
2. communicate the hazards information by e-mail or other suitable method.

In either case, the Senior Pathology Assistant must obtain the signatures of the employees trained.

5.6. Hazardous Non-routine Tasks

SCMEO employees are prohibited from entry and performing work in hazardous sites and situations. An example of a prohibition is entry into a confined space.

In rare situations a Medical Investigator may be called to a scene that may be unsafe to enter. Under no circumstances is a SCMEO employee authorized to enter a potentially

hazardous situation or scene. For the record, the SCMEO employee must obtain information from the scene supervisor and/or fire/safety personnel at the scene about the hazardous chemicals and the specific chemical hazards, protective and safety measures the scene supervisor or fire/safety personnel have taken to reduce the hazards, including ventilation, respirators and emergency procedures. Until the scene has been reliably determined to be safe for entry, the Medical Investigator shall not enter. If necessary, the Investigator will request onsite emergency response personnel who are trained in hazardous response to bring the body (bodies) out.

Another example of a hazardous situation for which entry is prohibited would be an on-site chemical spill of such large quantity that fire department hazmat should respond. Once they have deemed the spill site "safe", SCMEO employees may reenter. (However, note for the record that SCMEO does not maintain extremely large quantities of hazardous chemicals).

5.7. Informing Other Employers/Contractors

The SCMEO is not a multi-employer work place with employees of other employers or contractors that may be exposed to hazardous chemicals at the SCMEO. However, if necessary, SCMEO employees will ensure that repairmen (for example, from the Facilities Department) are not exposed to any chemical hazards. If there are any questions or concerns, a member of the Management Team shall be contacted in a timely fashion.

5.8. Hazardous Chemicals Inventory

A list of all known hazardous chemicals used by SCMEO employees will be maintained in the MSDS notebook, located in the front office. This list includes the name of the chemical, the manufacturer and the work area in which the chemical is used. Further information on each chemical may be obtained from the individual MSDS sheets.

When newly introduced chemicals are received, the hazardous chemicals inventory will be updated (including date the chemicals were introduced) within 30 days. To ensure any new chemical is added in a timely manner, the following procedures shall be followed:

1. The interested staff member will propose introduction of the chemical to Management;
2. The senior Pathology Assistant will provide information about the chemical to Management (this may be in the form of a downloaded MSDS, for example);
3. If approved for purchase by Management, the Accounting Technician II will order the chemical in the smallest practical amounts (the SCMEO will not maintain amounts of any hazardous chemical in excess of what is required to perform their mission); and
4. The senior Pathology Assistant will update the Hazardous Chemical Inventory with the newly-acquired chemical or reagent. The Hazardous Chemical Inventory is compiled and maintained by the senior Pathology Assistant.

5.9. Chemicals in Unlabeled Pipes

SCMEO work activities are not performed by employees in areas where chemicals are transferred through unlabeled pipes (in other words, this section is “not applicable”).

5.10. Program Availability

A copy of this program will be made available, upon request, to employees and their representatives.

SECTION 6.0
Radiation Protection

6.1 Policy

It is the policy of the Snohomish County Medical Examiner's Office (SCMEO) to protect personnel from unnecessary exposure to radiation. With regards to radiation safety training, the ***Accident Prevention Policy*** states that provision shall be made of "annual training in the use of … radiologic equipment for Pathology Assistants."

The National Association of Medical Examiners (NAME) recommends that:

> "…in-house x-ray equipment periodically (be) assessed for performance improvement, radiation protection, x-ray beam collimation, and biomedical safety, and records of these evaluations (be) maintained."

NAME further recommends that there be:

> "…a documented program in place to assure that all personnel exposed to x-ray or other radiation sources are monitored for radiation exposure; as part of this policy, … there (should be) a mechanism in place to identify persons who are approaching, have reached, or have exceeded their exposure limits and to take appropriate actions."

Finally, NAME recommends that:

> "… x-ray equipment (be) properly and currently licensed and maintained."

It is the policy of the Snohomish County Medical Examiner's Office (SCMEO) to be in complete compliance with these recommendations, as well as Washington State and Snohomish County regulations and policies.

6.2 Regulations and Standards

General radiation protection rules and standards can be found in the Washington Administrative Codes (WAC) chapter 246-220 WAC, Radiation protection – General Provisions; chapter 246-221 WAC, Radiation protection standards; chapter 246-222 WAC, Radiation protection – Worker rights, and chapter 246-225 WAC, Radiation protection – X-rays in the healing arts. Copies of these regulations (and annual registration) are available for review and maintained within a section of the Radiation Safety Notebook (see section **H**, below).

6.3 Equipment

The MEO has two diagnostic radiographic x-ray sources at the facility. These machines are used to x-ray human remains for forensic purposes. All X-ray producing equipment is regulated under this standard practice. For administrative convenience, the two x-ray sources are identified as follows:

1. Continental HF x-ray (radiographic) unit located at a fixed position in the designated radiology room, and

2. Trophy portable dental x-ray unit kept in the isolation autopsy room.

6.4 Responsibilities

1. Chief Medical Examiner

Overall responsibility for the safety of the staff of the SCMEO rests with the Chief Medical Examiner. The Chief Medical Examiner (or his/her delegates) will ensure that a.) Staff members are trained to this policy and procedure; b.) Any further required periodic training occurs; c.) Primary and Alternate Radiation Safety Officers are appointed and trained to their responsibilities and duties; d.) Staff members follow all required safety procedures; and e.) Radiologic equipment is properly maintained, licensed and inspected.

2. Radiation Safety Officer

An Autopsy Assistant will be designated as the Radiation Safety Officer (RSO) for the SCMEO. The Radiation Safety Officer (RSO) has administrative responsibility for the SCMEO's radiation safety program. An Alternate RSO will also be appointed to provide any necessary support or assistance.

The RSO ensures that radiation protection services occur in the proper manner. Such services include personal monitoring and ensuring that records required by Washington State are maintained and annually sent to the Snohomish County Safety Office.

3. All Staff Members

All staff members are personally responsible for their own safety. It is the expectation that staff members will report unsafe working conditions immediately to the RSO and to the Chief Medical Examiner. It is also expected that staff members using radiological equipment will be familiar with the SCMEO Radiation Protection Program.

6.5 Caution Signs and Notice to Employees

1. “State of Washington Notice to Employees” shall be conspicuously posted so that employees working in or entering any room used for x-ray purposes will see it on the way to or from such area.
2. Warning label. The control panel containing the main power switch shall bear the warning statement, legible and accessible to view: "WARNING: This X-ray unit may be dangerous to operator, unless safe exposure factors and operating instructions are observed."
3. A conventional radiation symbol shall be posted at the entry to the x-ray room and isolation room.
4. A sign with the words "CAUTION: X-RAY IN USE" shall be posted at the entrance when the when the room is being used for x-ray purposes.

6.6 Personal Monitoring Equipment

A personal monitoring device (dosimeter) shall be assigned and worn to measure the radiation doses received by an individual x-ray operator. At SCMEO, Landauer personal dosimeters are utilized; these shall be worn on the upper half of the torso (i.e., between the waist and shoulders). The dosimeter shall not be worn by any individual other than that individual originally assigned the device.

Each employee is personally responsible for wearing a dosimeter whenever in the immediate vicinity of where radiographs are being performed (e.g., within the X-Ray Room). Furthermore, it is the expectation that staff members will help ensure that their co-workers appropriately wear their dosimeters (in the same manner that staff members ensure their co-workers wear their appropriate personal protection equipment). Unsafe situations should be reported to the RSO and/or the Chief Medical Examiner.

Monitoring devices shall be checked regularly and staff members will have their exposures disclosed to them and recorded appropriately. This will be accomplished by:

1. Collection of all dosimeters on a <u>quarterly</u> basis by the RSO, shipment of these dosimeters to Landauer Incorporated and follow-up with each individual when their report is returned to the SCMEO. A copy of the quarterly exposure record will be given to the individual. The original exposure report will be maintained within a section of the Radiation Safety Notebook (see section **6.8**, below).

    a. Quarterly new dosimeters are received from Landauer, At that time, the old dosimeters and a control badge are sent to Landauer at the following address:

    Landauer, Inc.

2 Science Road
Glenwood, IL 60425
(708) 755-7000

b. When Landauer receives the dosimeters from SCMEO, they assess radiation exposure for each badge and then send to SCMEO an exposure record (this is the quarterly exposure record described in paragraph above.)

2. An annual report of radiologic exposure for each exposed staff member shall be sent to the Snohomish County Safety Office.

3. Upon conclusion of employment at the SCMEO for any reason (transfer, termination, etc), a written report of cumulative exposure shall be provided to the departing individual.

4. **Action Levels**: Radiation Protection Standards listed under WAC 246-221-010 specify the following regarding occupational dose limits for adults:

(1) The licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to WAC 246-221-030, to the following dose limits:

(a) An annual limit, which is the more limiting of:

(i) The total effective dose equivalent being equal to 0.05 Sv (5 rem); or

(ii) The sum of the deep dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 0.50 Sv (50 rem).

(b) The annual limits to the lens of the eye, to the skin of the whole body, and to the skin of the extremities which are:

(i) A lens dose equivalent of 0.15 Sv (15 rem); and

(ii) A shallow dose equivalent of 0.50 Sv (50 rem) to the skin of the whole body or to the skin of any extremity.

Because generally speaking the cumulated lifetime exposure for our staff members tends to be found in millirem (1/1000 of a rem) quantities, it is the policy of the Snohomish County Medical Examiner's Office that if the accumulated annual dose for any staff member approaches 1 rem, an

assessment of exposure will be performed, to include asking for a technical assist visit from the Washington State Department of Health Office of Radiation Protection. If deemed appropriate by the Chief Medical Examiner, the exposed staff member will be assigned to other duties until the exposure assessment has been completed.

While working, these dosimeter badges are to be worn all of the time. When not being used (e.g., after work hours), dosimeters shall be stored in an area that is free of radiation sources or temperature extremes (for example, a locker). Lost monitoring devices, or devices known to have been accidentally exposed (dosimeters left in the x-ray area) shall be reported to Radiation Safety Officer as soon as possible so replacement dosimeters can be issued.

6.7 Reporting an Exposure or Unsafe Condition

Personnel have the responsibility for maintaining a safe workplace. Individuals suspecting over-exposure must contact: 1) the Snohomish County Safety Office to evaluate the dose and 2) a physician for medical follow-up.

It is important to record a detailed description of the exposure, including the position of the person, the length of exposure, intensity of the radiation, source of radiation, and (if possible) an estimate of the dose delivered.

Employees shall promptly report to their supervisor or the Snohomish County Safety Office any of the following:

1. Suspected unsafe conditions;
2. Any condition which may lead to or cause a violation of the Washington Administrative Codes (WAC 246-225); and
3. Any condition which may cause unnecessary exposure to radiation.

6.8 Radiation Safety Notebook

A notebook titled “Radiation Safety Notebook” shall be administered by the RSO and maintained by the Accounting Technician II. Sections in this notebook shall include reports of equipment technical and safety inspections; dosimeter exposure records; records of annual training; and any other subjects germane to radiation safety at the SCMEO.

6.9 X-ray Registration, Inspection and Maintenance

All MEO radiographic equipment shall be registered annually with the Washington State Department of Health, Radiation Protection Division. State equipment inspections are

scheduled and conducted on a four-year cycle. Maintenance will take place on the same four year cycle or as necessary.

6.10 Annual Training and Policy/Procedure Review

X-ray operators shall review this Radiation Protection Policy and Procedure annually for the purposes of refresher training. Upon completion of the annual review of this policy and procedure, the reviewing employee shall bring any question(s) or suggestion(s) for date or correction of the policy and procedure to his or her supervisor. Records of this training will be maintained in the "Radiation Safety Notebook" (see section **6.8**, above).

6.11 Basic Radiation Safety Procedures

The radiation protection program is guided by the concept of keeping radiation exposure ***as low as reasonably achievable*** (ALARA). Under the ALARA program, every reasonable means of minimizing exposure is used by utilizing three basic principles:

1. **Time**: Limit the time of exposure. Shorter exposure time means a lower dose.
2. **Distance**: By increasing the distance between the source of the exposure and an individual, the dose received can be significantly reduced. Doubling the distance from a radiation source means one-fourth the dose rate. Tripling the distance gives one-ninth the dose rate.
3. **Shielding**: Absorbent material or shields can be incorporated to reduce exposure levels. Lead shielding is generally used for diagnostic low-energy x-rays.

6.12 Guidelines for Safe Operation of X-Ray Equipment

The following guidelines shall be observed when operation x-ray equipment.

1. Personal monitoring devices shall always be worn when working with radiographic equipment.
2. The operator shall stand behind the barrier provided for his/her protection during radiographic exposures at permanent radiographic installations.
3. Only persons whose presence is necessary shall be in the radiographic room during exposure. All such persons who are subject to direct scatter radiation shall be protected by aprons or whole body protective barriers of not less than 0.25 mm lead equivalence.
4. It is the operator's responsibility to ensure the safety of others who might be in the room and to give an audible warning before the exposure is made.
5. Mechanical supporting or restraining devices shall be used when the decedent or film must be held in position for radiography.
6. The x-ray beam shall always be collimated to the smallest area consistent with clinical requirements and shall always be aligned accurately with the target and film.

The smallest practical field sizes and shortest exposure times shall be used, as long as film quality is not compromised.

Section 7.0
Ergonomics

7.1 Purpose

The MEO is committed to preventing injuries associated with ergonomic hazards. Ergonomic hazards may be found in the design of work tasks, equipment used and the working environment. The purpose of this policy is to prevent injuries and illnesses by removing their causes. For musculoskeletal disorder hazards we can achieve this by eliminating or reducing employee exposure.

7.2 Definitions

- Ergonomics. Ergonomics (or human factors) is the scientific discipline concerned with the understanding of the interactions among human and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.
- Ergonomic Stressors. Conditions that pose a biomechanical stress to the human body associated with increased risk for development of musculoskeletal disorders.
- Musculoskeletal Disorder. Musculoskeletal disorders (MSDs) are disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. MSDs do not include disorders caused by slips, trips, falls, motor vehicle accidents, or other similar accidents. Examples of MSDs include: carpal tunnel syndrome, tendinitis, and chronic low back pain.
- Work-related Musculoskeletal Disorder Hazard (WMSD Hazard). Work activities and/or work conditions in which ergonomic stressors are present that are reasonably likely to cause or contribute to a MSD.

7.3 Employee Responsibilities

SCME employees shall be responsible for working cooperatively together to ensure the following:

- Ergonomic hazards relating to deficient design of tools, equipment, work station or work practices are identified and the associated risks controlled.
- Adequate equipment is provided and used properly.
- Information, instruction or training is provided and received in the use of equipment and proper working techniques.
- Injury or symptoms are identified and reported early.

7.4 Symptoms of Musculoskeletal Disorder

Symptoms of MSD identify that one or more ergonomic stressors may be present. There may be individual difference in susceptibility and symptoms among employees performing similar tasks. Any symptoms are to be taken seriously.

The following list of symptoms can be but are not limited to:

- Numbness
- Tightness
- Tingling
- Swelling
- Pain
- Stiffness

7.5 Obtaining Assistance

Employees and/or Supervisors may request an ergonomic assessment of work area(s) or work process(es) by contacting the Safety Office at extension 3413. When a potential ergonomic hazard has been identified, the department will work with the Safety Office in eliminating or minimizing the hazard. There are two general approaches to controlling ergonomic hazards: Engineering and Administrative.

- Engineering Controls - Are changes made to the workstations, tools, and/or machinery that alter the physical composition of area or process.
- Administrative Controls - Are changes made to regulate exposure without making physical changes to the area or process, for example taking frequent breaks and job rotations. In general, engineering controls are preferred as their goal is to reduce the presence of hazards.

7.6 Medical management

If an employee is experiencing any signs or symptoms of musculoskeletal disorders, the employee is to report their symptoms to their supervisor as soon as possible.

7.7 Training

The Safety Office provides ergonomic training upon request by the department. The training program includes but is not limited to the definition of ergonomics, ergonomic stressors, types of MSDs, symptoms of MSD, reporting, and work strategy controls.